

Notice of Allowability

Application No.

09/703,574

Examiner

Wen-Tai Lin

Applicant(s)

MAES, STEPHANE H.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 1/21/05 and interview on 5/17/05.
2. ☒ The allowed claim(s) is/are 1-7, 9-27 and 29-32, renumbered as 1-30.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 4/14/04.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Wen-Tai Lin
5/18/05

EXAMINER'S AMENDMENT

1. An examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable, an amendment may be filed as provided by 37 C.F.R. 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.

2. Authorization for the examiner's amendment was given in a telephone interview with Mr. Frank DeRosa, reg. no. 43584, on May 17, 2005.

3. In the claims:

i. Please cancel claims 8, 28 and 33.

ii. Please replace claims 15-18, 23-26, 30 and 32 to the following:

15. (Currently Amended) The system of claim 1, wherein the second layer employs ~~an extension of~~ RTP (real time protocol) to wrap the encoded audio data.

16. (Currently Amended) The system of claim 1, wherein the third layer employs ~~an extension of~~ RTCP (real time control protocol) to wrap the transmission control data.

17. (Currently Amended) The system of claim 6, wherein the fifth layer employs ~~an extension of~~ RTCP (real time control protocol) to wrap the distributed control data.

18. (Currently Amended) The system of claim 6, wherein the fifth layer employs ~~an extension of~~ RTSP (real time streaming protocol) to wrap the distributed control data.

23. (Currently Amended) A communication system for use in a real-time distributed conversational network, the communication system comprising:

a communication stack comprising:

a first layer for generating encoded audio data;

a second layer for wrapping encoded audio data in a real-time encoded audio data stream; and

a third layer for wrapping control messages in a real-time control data stream

comprising control data that enables real-time control and coordination of

conversational distributed functions over the network; and

a fourth layer for generating a real-time transmission control data stream, wherein the real-time transmission control data stream comprises meta information for providing coding scheme notifications.

24. (Currently Amended) The system of claim 23, wherein the communication stack employs ~~comprises an extension of~~ RTP (Real Time Protocol).

25. (Currently Amended) The system of claim 24, wherein meta information associated with the real-time encoded audio stream is added in ~~as an extension of~~ a header of an RTP packet, wherein the RTP header ~~extension~~ comprises one field indicating

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an encoding type of the encoded audio data in the RTP packet and a second field comprising header information associated with a file of the encoded audio data.

26. (Currently Amended) The system of claim 24, wherein meta information associated with the real-time control data stream is added in ~~as an extension of~~ a header of an RTCP (Real Time Control Protocol) packet, wherein the RTCP header ~~extension~~ comprises a first field indicating a type of conversational distributed protocol and a second field comprising a corresponding control message.

30. (Currently Amended) The system of claim 23, wherein ~~an extension of~~ RTSP (real-time streaming protocol) is employed to wrap the control messages.

32. (Currently Amended) A method for providing real-time distributed conversational computing, comprising the steps of:
generating encoded audio data;
wrapping encoded audio data in a real-time encoded audio data stream; and

wrapping control messages in a real-time control data stream comprising control data that enables real-time control and coordination of conversational distributed functions over the network,

wherein the audio data comprises compressed feature vectors representative of speech and wherein the encoded audio data comprises a file format that enables transmission of segments of speech and decompression of the segments of speech in a random order.

4. The Abstract has been amended to within 150 words and presented on a single page (see the attached page).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

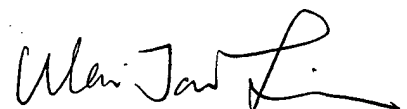
(703)872-9306 for official communications; and

(571)273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

May 18, 2005


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ABSTRACT OF THE DISCLOSURE

Conversational protocols for implementing distributed conversational networking architectures and/or distributed conversational applications, as well as real-time conversational computing between network-connected pervasive computing devices and/or servers over a computer network. In one aspect of the invention, a communication stack for use in a real-time distributed conversational network comprises a first layer for generating encoded audio data, a second layer for wrapping encoded audio data in a real-time encoded audio data stream, and a third layer for wrapping control messages in a real-time control data stream for real-time control of conversational distributed functions over the network. Preferably, the communication stack comprises extensions of RTP (Real Time Protocol) and RTCP (Real Time Control Protocol) to respectively transmit, in real-time, the necessary encoded audio data and control data for executing and controlling distributed conversational functions, wherein meta information associated with the real-time encoded audio stream is added as an extension of header of an RTP packet, and wherein meta information associated with the real-time control data stream is added as an extension of a header of an packet.